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# FSN-1200 PLANT OPERATIONS AND MAINTENANCE GROUP

(TL:FSNH-23; 04-15-1998)

The Plant Operations and Maintenance Group includes all supervisory and non-supervisory positions concerned with the maintenance and repair of buildings and with the operation and maintenance of utilities equipment. It includes the following series:

Maintenance Management Series	FSN-1205
Trades and Crafts Series	FSN-1210
Utilities Equipment Operation Series	FSN-1215

## FSN-1205 MAINTENANCE MANAGEMENT SERIES

This series includes all positions, the duties of which are to direct and supervise buildings and grounds maintenance and repair programs, and programs for the operation and maintenance of utilities equipment, and also positions the duties of which are to relieve Management and supervisory personnel of detailed planning, estimating, scheduling, inspection, and related duties, or to facilitate their efforts in these areas. The Maintenance Management Series includes:

Maintenance Supervisor	FSN-1205-10
Maintenance Supervisor	FSN-1205-8
Maintenance Supervisor	FSN-1205-7
Maintenance Inspector	FSN-1205-6
Work Control Clerk	FSN-1205-5

**GROUP:** Plant Operations & Maintenance **SERIES:** Maintenance Management

TITLE: Maintenance Supervisor LEVEL: FSN-1205-10

#### **BASIC FUNCTION:**

Direction of buildings, grounds, and associated equipment maintenance program at a large post.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

At a large post, is responsible for the entire buildings, grounds, and associated equipment maintenance and repair program. directly and through subordinate Foremen and multi-trade workforce of approximately 50 to 100 employees and regularly assigned contract personnel. Advises the General Services officer or other official concerning the annual maintenance budget, the purchase of major equipment, construction projects, and the advantages and disadvantages of contract versus in-house performance of specific maintenance and repair operations. May participate in negotiating maintenance contracts, serve as liaison with the contractor, and supervise work done under the contract. Develops maintenance and work schedules. Approves work orders, fixes priorities, and coordinates the work of separate trade groups involved, and the overall job so as to minimize to insure a high level of efficiency. Prepares reports on various aspects of the maintenance program. Selects employees, approves leave, takes disciplinary action in most cases, and makes recommendations for promotion.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is required. Must have completed vocational training or apprenticeship recognized as producing journeyman mechanic skills in one of the major maintenance trades, or have completed other specialized training recognized as pertinent to maintenance management.

**EXPERIENCE:** Six years of progressively responsible experience in the maintenance area, ideally including journeyman mechanic, supervisory, and maintenance inspection or planning and estimating experience, is required.

**LANGUAGE:** Level 4 English ability (fluent) is required.

**KNOWLEDGE:** Good working knowledge of building and grounds maintenance operations is required. Must have good knowledge of maintenance trade operating practices and procedures.

**ABILITY:** Must be able to manage a very large multi-trades workforce, to devise work schedules and to provide technical supervision to assure an effective maintenance program.

#### **DISTINGUISHING FEATURES:**

Maintenance Supervisor FSN-10 is the highest level recognized in the Maintenance Management Series. It is distinguished from other supervisory levels in the maintenance management and related series by responsibility for the entire maintenance program of a large post, supervision of 50 to 100 direct hire employees and regularly assigned contract personnel, and substantial responsibility in such management areas as budgeting, contract performance of maintenance work, and achieving maximum efficiency in the use of material and manpower resources. Supervision received is general. Only limited guidelines are available in the form of written instruction; established trade and maintenance practices are the main guides. A great deal of judgment is exercised in administering the maintenance program efficiently.

#### SUPPLEMENTARY NOTES:

The supervision of larger numbers of employees than indicated above will not operate to increase the level of the Maintenance Supervisor described above. At some posts, the Maintenance Supervisor function may be combined with the Engineer function; such positions should be classified in accordance with the Mixed Position Rule, giving careful consideration to the amount and level of Engineer work performed.

**GROUP:** Plant Operations & Maintenance SERIES: Maintenance Management

TITLE: Maintenance Supervisor LEVEL: FSN-1205-8

#### **BASIC FUNCTION:**

Direction of buildings, grounds, and related equipment maintenance and repair program at a medium size post.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

At a medium size post, is responsible for the buildings, grounds, and associated equipment maintenance and repair program. Supervises directly and through subordinate Foreman and multi-trade workforce of approximately 20 to 40 in-house and regularly assigned contract maintenance personnel. Make recommendations concerning the annual maintenance budget and concerning the contracting of specific maintenance and repair jobs. Supervises work done by contract and/or inspects completed work and reports on adequacy and quality. Develops maintenance and work schedules. Approves work orders, sets priorities, and coordinates the work of separate trade groups concerned, and the overall job so as to minimize disruption to the post. Maintains constant surveillance over maintenance operations to insure a high level of efficiency. Prepares reports on various aspects of the maintenance program. Selects employees, approves leave and most disciplinary actions, and make recommendation for promotion.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is required. Must have completed vocational training or apprenticeship recognized as producing journeyman mechanic skills in one of the major maintenance trades, or have completed other specialized training recognized as pertinent to maintenance management.

**EXPERIENCE:** Four years of progressively responsible experience in the maintenance area, ideally including journeyman mechanic, supervisory and maintenance inspection, or planning and estimating experience is required.

**LANGUAGE:** Level 3 English ability (good working knowledge) is required.

**KNOWLEDGE:** Good working knowledge of building and ground maintenance operations and a good knowledge of maintenance trades operating practices and procedures is required.

**ABILITY:** Must be able to supervise and provide technical guidance for a large multi-trades workforce.

#### **DISTINGUISHING FEATURES:**

Maintenance Supervisor FSN-8 is the second of three levels of Maintenance Supervisor recognized in the Maintenance Management Series. It is distinguished from other supervisory levels in this series by responsibility for the entire maintenance program of a medium sized post, supervision through subordinate Foremen, of about 20 to 40 in-house and regularly assigned contract personnel, and limited responsibilities in such management areas as budgeting, the purchase of equipment, and contract performance of maintenance work. Supervision received is general. Guidelines available in the form of local instructions requires interpretation; established trade and maintenance practices are the principal guides. A great deal of judgment is exercised in administering the maintenance program efficiently.

#### **SUPPLEMENTARY NOTES:**

At some posts, the function of supervising the maintenance function may be combined with other functions; such positions should be classified in accordance with the Mixed Position Rule.

**GROUP:** Plant Operations & Maintenance SERIES: Maintenance Management

TITLE: Maintenance Supervisor LEVEL: FSN-1205-7

#### **BASIC FUNCTION:**

Directions of buildings, ground, and related equipment maintenance and repair program at a small post.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

At a small post, is responsible for the buildings, grounds, and associated equipment maintenance and repair program. Supervises, usually directly, a multi-trade workforce of 8 to 15 in-house and regularly assigned contract employees. Develops maintenance and work schedules. Approves work orders and assigns work, explaining and interpreting blueprints and other directives, and provides on-the-job instructions as necessary. Assures that needed tools and materials are available as needed. Inspects work in progress and upon completion for adequacy. Prepares reports on various aspects of maintenance and repair operations. Select employees, approves leave, takes action in most disciplinary cases, and makes recommendations for promotion.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is required. Must have completed vocational training or apprenticeship recognized as producing journeyman mechanic skills in one of the major maintenance trades, or have completed other specialized training recognized as pertinent to maintenance management.

**EXPERIENCE:** Three years of progressively responsible experience, ideally including journeyman mechanic, supervisory and maintenance inspection, or planning and estimating experience.

**LANGUAGE:** Level 3 English ability (good working knowledge) is required.

**KNOWLEDGE:** Good knowledge of building and grounds maintenance operations and a good knowledge of maintenance trades operating practices and procedures is required.

**ABILITY:** Must be able to supervise a multi-trade workforce effectively, including devising work schedules and providing on-the-job instruction.

Maintenance Supervisor FSN-7 is the lowest of three levels of Maintenance Supervisor recognized in the Maintenance Management Series. It is distinguished from Maintenance Supervisor FSN-10 and FSN-8 by the fact that it is essentially a first level supervisor of 8 to 15 employees, and by its lesser scope in responsibility for maintenance budgeting and contract performance of work. It is distinguished from Maintenance Foreman FSN-6 by its greater authority to establish the maintenance schedule and to commit funds through approval of work orders. Supervision received is general, but typically there is considerable reliance on the American Supervisor's decisions. Guidelines are clear and directly applicable. Considerable judgment is exercised in making best use of equipment, material, and personnel resources.

**GROUP:** Plant Operations & Maintenance **SERIES:** Maintenance Management

TITLE: Maintenance Inspector LEVEL: FSN-1205-6

#### **BASIC FUNCTION:**

Inspection of buildings and equipment to determine nature and extent of maintenance and repair work needed and to determine progress, conformance with specifications, and adequacy of work on jobs in process or recently completed.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Inspects buildings and equipment, on a scheduled basis and in response to work requests, to determine nature and extent of maintenance, alteration, and repairs required, and to determine need for maintenance and repairs, to estimate the kind, amount and cost of material and manpower needed. Makes recommendations to maintenance supervisor or other superior as to need for, timing, and extent of maintenance and repairs, and as to whether the work should be done in-house or by contractor. Inspects maintenance, alteration, and repair work performed in-house or by contract for progress, conformance to specifications, quality of materials, and adequacy of the work.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is desirable. Must have completed vocational training, apprenticeship, or experience recognized as producing journeyman mechanic skills in one of the major maintenance trades.

**EXPERIENCE:** Two years experience in one of the major maintenance trades, plus one year of experience as a maintenance inspector or planner and estimator.

**LANGUAGE:** Level 3 English ability (good working knowledge) is required.

**KNOWLEDGE:** Journeyman level knowledge and skills in one of the major maintenance trades and sufficient knowledge of overall maintenance operations sufficient to permit recognition of need for maintenance and repairs to protect buildings and equipment, to estimate kind, amount, and cost of materials and labor needed for maintenance and repairs, and to evaluate conformance to specifications and adequacy and quality of work.

**ABILITY:** Must have skill in one major trade, but also be able to acquire technical knowledge of other trades to ensure that repairs and maintenance work is being done properly and meets prescribed standards of quality.

#### **DISTINGUISHING FEATURES:**

This in the only level of Maintenance Inspector recognized in the Maintenance Management Series. The Maintenance Inspector is distinguished from other types of maintenance work by the application of journeyman mechanic skills plus more generalized maintenance knowledge to the inspection of buildings and equipment to determine the need for maintenance and repairs, to estimate the kinds, amounts, and costs of materials and labor needed for the maintenance and repairs, and to evaluate the adequacy and quality of ongoing and completed work. Only general supervision is received, and guidelines are mainly in established trade practices although station instructions do provide some guidance, as do supervisory instructions. A high degree of judgment is employed in determining the need for work, estimating costs, and evaluating the quality of work performed.

#### **SUPPLEMENTARY NOTES:**

MAINTENANCE INSPECTORS are normally utilized only at large posts; at smaller posts, this function is usually accomplished by some level of supervision in the maintenance area.

**GROUP:** Plant Operations & Maintenance SERIES: Maintenance Management

TITLE: Work Control Clerk LEVEL: FSN-1205-5

#### **BASIC FUNCTION:**

Preparation and typing of work orders.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Receives telephone and written requests for maintenance and repairs from offices and occupants of government-owned or leased residential quarters and types work orders; may incorporate information provided by the Maintenance Inspector or another senior level employee in the final draft of work order. After approval of the work order, distributes it to the appropriate shop(s). Follows up on work orders in process. Reviews work orders returned by the shops to ensure all necessary information has been included, and extends and totals labor and material costs. Maintains files of completed work orders for reference purposes. May prepare requisitions for building materials. May perform other clerical work connected with building and grounds maintenance.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is required.

**EXPERIENCE:** Two years of clerical and shop experience, the latter related to maintenance operations.

**LANGUAGE:** Level 3 English ability (good working knowledge) is required.

**KNOWLEDGE:** General knowledge of maintenance operations and terminology.

**ABILITY:** Must deal tactfully with persons requesting maintenance and repair.

#### **DISTINGUISHING FEATURES:**

Work Order Clerk is distinguished from other maintenance occupations by the performance of clerical work, albeit with a desired requirement of a general knowledge of maintenance operations and terminology. General supervision is received from maintenance supervisor or another higher level employee who reviews and approves work orders. Local instructions, supervisory guidance, and information provided by a Maintenance Inspector offer easily applied guidelines, but some judgment is involved in assigning

tentative priorities in accordance with supervisory instructions. Tact is required in dealing with persons who telephone in work requests.

#### **SUPPLEMENTARY NOTES:**

This function is sometimes combined with other secretarial and clerical work performed in the maintenance or General Services Office: such positions will be classified in accordance with the Mixed Position Rule.

#### FSN-1210 TRADES AND CRAFTS SERIES

This series includes all positions the duties of which are to perform supervisory or non-supervisory work within the scope of a recognized trade or craft in connection with the maintenance and/or repair of buildings and associated equipment. Non-supervisory work includes semi-skilled positions such as helpers and intermediate level semi-skilled trade workers, and skilled positions of journeyman mechanics. Supervisory work includes working supervisors who exercise day-to-day supervision over a small number of journeyman mechanic duties and also supervisors who have continuing responsibility for supervision and management of an organizational unit of eight to fifteen skilled and semi-skilled employees.

A single standard of Mechanic FSN-4 has been written for all skilled journeyman level mechanic positions in the "building trades," i.e., Carpenter, Electrician, Mason, Painter, Pipe-fitter, Plumber, Welder, etc., but classification titles should be assigned in accordance with the specific trade involved. Individual standards have been assigned in accordance with the specific trade involved. Individual standards have been prepared for several other skilled trades occupations, i.e., Locksmith, Machinist, Furniture Repairer, Upholsterer, Office Machine Repairer, Refrigeration and Air-Conditioning Mechanic, and Maintenance Mechanic, all at the FSN-4 level. A single standard of Mechanic FSN-3 represents the semi-skilled level in all trade areas; however, classification titles should be assigned in accordance with specific trade in which semi-skilled work is performed. A standard for Maintenance Mechanic FSN-3 has also been prepared.

#### The Trades and Crafts Series includes:

Maintenance Foreman	FSN-1210-6
Maintenance Foreman	FSN-1210-5
Upholsterer	FSN-1210-4
Refrigeration and Air- Conditioning Mechanic	FSN-1210-4
Office Machine Repairer Machinist Locksmith Furniture Repairer Mechanic (Building Trades) Maintenance Mechanic Maintenance Mechanic	FSN-1210-4 FSN-1210-4 FSN-1210-4 FSN-1210-4 FSN-1210-4 FSN-1210-3
Mechanic	FSN-1210-3
Trades Helper	FSN-1210-2

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft **TITLE:** Maintenance Foreman LEVEL: FSN-1210-6

#### **BASIC FUNCTION:**

Supervision of building and ground maintenance and repair work in two or more trade areas.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Supervises a multi-trade work force of 8 to 15 skilled and semi-skilled employees engaged in preventative maintenance and repairs on structures and associated equipment of office buildings, residence quarters, and other government-owned or leased buildings. Develops or participates in the development of a preventive maintenance schedule. Receives work orders or other work instructions and assigns work to subordinates. Explains and interprets blueprints and other guides and directives and gives on-the-job instruction as needed. Assures that needed tools, equipment and materials are available. Inspects work in progress and upon completion for adequacy. Provides on-the-job training in trade skills, shop practice, safety, Maintains records and prepares reports on various aspects of maintenance and repair operations. Is responsible for all typical first level supervisory functions including efficient use of equipment, material, and manpower, selecting or participating in the selection of employees, evaluation of work, approval of leave, and recommendation of promotions and disciplinary action. May supervise work force partly through Maintenance Foreman FSN-5.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Some secondary schooling is desirable; completion of vocational training or apprenticeship recognized as producing a journeyman mechanic or equivalent experience is required.

**EXPERIENCE:** Two years of journeyman experience (principle trade) and two years of supervisory experience is required.

**LANGUAGE:** Level 3 English ability (good working knowledge) is required.

**KNOWLEDGE:** Must have full journeyman knowledge of established practices and procedures of the principal trade involved; must have a general knowledge of other trades involved.

**ABILITY:** Must be able to use all tools of the trade; must be able to supervise effectively; may be required to have local driver's license.

#### **DISTINGUISHING FEATURES:**

This is the higher of two levels of Maintenance Foreman work recognized in the Trade and Craft Series. Maintenance Foreman FSN-6 is distinguished from other supervisory levels in the Trade and Craft Series by supervision of a force of 8 to 15 skilled and semi-skilled employees in several trades and by the fact that the duties are primarily supervisory in character, with continuing responsibility for management of the unit and efficient use of equipment, materials, and clearly applicable and limited in scope. Considerable judgment is employed in making efficient use of resources. Duties require ability to supervise effectively.

#### SUPPLEMENTARY NOTES:

Supervision of a larger number of employees than indicated above would not normally affect the FSN-level of the Foreman FSN-6 position.

**GROUP:** Plant Operations & Maintenance SERIES: Trade and Craft **TITLE:** Maintenance Foreman LEVEL: FSN-1210-5

#### **BASIC FUNCTION:**

Working supervision of building and grounds maintenance and repair work in one trade area or two or three related trade areas.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

As a working supervisor, directs a single trade or multi-trade work force of 3 to 6 employees engaged in performing preventative maintenance and repair work on structures and associated equipment of office buildings, residential quarters, and other government-owned or leased buildings, and personally performs highly skilled full journeyman level work in a trade. Receives assignments in the form of work orders or other instructions and assigns tasks to his subordinates. Explains and interprets blueprints and other guides and directives and give on-the-job instruction to subordinates as needed. Assures that needed tools equipment and materials are available. Checks on work in progress. Maintains records on labor and materials costs, etc. and prepares reports on these and other matters. May drive a motor vehicle to transport men, tools, and materials to job sites.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Some secondary schooling is desirable; completion of vocational training or apprenticeship recognized as producing a journeyman mechanic, or equivalent experience is required.

**EXPERIENCE:** Two years of journeyman mechanic experience (any trade) and one year of working supervisor experience is required.

**LANGUAGE:** Level 2 English ability (limited) is required.

**KNOWLEDGE:** Must have full journeyman knowledge of established practices and procedures of the trade involved; must have a general knowledge of other trades.

**ABILITY:** Must be able to use all tools of the trade; may be required to have local driver's license.

This is the lower of two levels of Foreman recognized in the Trade and Craft Series. Foreman FSN-5 is distinguished from Foreman FSN-6 by the fact that positions in Foreman FSN-5 are working supervisors of small (3 to 6 employees) single trade or multi-trade maintenance groups, and are primarily journeyman workers. Supervision received is general in nature. Guidelines are primarily established trade practices and clearly applicable supervisory instructions. Judgment is exercised in determining work priorities.

#### **SUPPLEMENTARY NOTES:**

Where more than one trade group is supervised, the title of Maintenance Foreman will be used. Where only one trade is supervised, that trade will be used, e.g., Carpenter Foreman FSN-5, or other supervisory title, will not be used for positions supervising less than three (3) subordinates.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft LEVEL: FSN-1210-4

#### **BASIC FUNCTION:**

Repairs and recovers upholstered furniture.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Determines nature and extent of work to be done from supervisory instructions, work order or examination of furniture. Removes cushioning from seat, arms, backs, and sides of item to be repaired. Removes cushioning material, discarding if faulty, replaces bent or broken springs, and tightens or replaces webbing. Repositions and reties springs as needed. Repairs or strengthens furniture frame as necessary. Replaces cushioning material or measures, cuts, and installs new cushioning as necessary. Measures, cuts, stretches and installs binding material, such as muslin, burlap, or canvas, tacking or stitching it in place. Measures, marks, and cuts covering upholstery fabric or other material, and sews, cements, or tacks in place, insuring that pattern matches at seams or other places where section of material are joined. Cleans and polishes exposed wooden surfaces. May refinish small areas of exposed wooden surface. Uses all hand tools and equipment of the trade.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school and completion of vocational training, apprenticeship, or equivalent experience recognized as producing journeymen upholsterer skills is required.

**EXPERIENCE:** One year of experience as a journeyman level upholsterer.

**LANGUAGE:** Level 1 English ability (rudimentary) is desirable.

**KNOWLEDGE:** Must possess full journeyman upholsterer knowledge and skills.

This is the highest level of non-supervisory upholsterer work recognized in the Trades and Craft Series. It is distinguished from other levels of upholstery work by the performance of highly skilled journeyman level upholstery work. Supervision is general and in terms of results expected. Guidelines are established trade practices and procedures. A high degree of manipulative skill is required.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft TITLE: Refrigeration and Air Conditioning Mechanic LEVEL: FSN-1210-4

#### **BASIC FUNCTION:**

Installation, maintenance, and repair of electric refrigeration and airconditioning equipment and systems.

#### MAJOR DUTIES AND RESPONSIBILITIES:

Performs skilled journeyman level refrigeration and air-conditioning mechanic work involved in the installation, maintenance, and repair of electric powered refrigeration and air-conditioning equipment and systems of all types including, but not limited to, industrial and residential refrigerators and freezers, cold storage equipment, dehumidifiers, water coolers, and air-conditioning systems. Examines equipment or makes diagnostic tests to determine nature and extent of work necessary. Disassembles equipment and adjusts, repairs, or replaces defective parts or components to correct malfunctioning motors, compressors, cooling units, condensers, valves, relays, switches, pipers, and other controls, using hand tools such as screwdrivers, wrenches, and pliers, welding, soldering, and cutting equipment, and various electric and other testing instruments. Periodically inspects, tests, cleans, and services equipment. May drive motor vehicle to transport equipment tools, and materials to and from job site. May direct the work of a trades helper and laborer.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training or apprenticeship recognized as producing journeyman mechanic skills, or equivalent experience, is required.

**EXPERIENCE:** One year of journeyman mechanic experience is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established practices and procedures of the specific trade involved.

**ABILITY:** Must be able to use all tools of the trade; may be required to have a local driver's license.

Refrigeration and Air-Conditioning Mechanic is the highest nonsupervisory level of Refrigeration and Air-conditioning Mechanic work recognized in the Trades and Craft Series. It is distinguished from other levels by the performance of full journeyman level refrigeration and airconditioning maintenance and repair involving the most difficult and skilled work in this trade area. Supervision is general and instructions are in terms of results expected. Guidelines are provided by established trade practices and, to some extent, by manufacturer's manuals. Judgment is exercised in determining when parts require replacement.

#### SUPPLEMENTARY NOTES:

When refrigeration and air-conditioning mechanic functions are continued with those of another trade, the position should be classified in accordance with the Mixed Position Rule.

**GROUP:** Plant Operations & Maintenance **SERIES:** Trades and Craft **TITLE:** Office Machine Repairer **LEVEL:** FSN-1210-4

#### **BASIC FUNCTION:**

Maintains, overhauls, and repair manual and electric typewriters and electric calculating, duplicating, and other office machines.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Performs skilled journeyman level maintenance and repair of electric and manual typewriters, calculators, duplicating machines, and other office machines. Determines extent and nature of work to be done from work order, supervisory instructions, trouble call, or by diagnostic tests. Disassembles machine to extent necessary and adjusts, repairs, or replaces defective parts, using small hand tools such as screwdrivers, pliers, wrenches, and files. Overhauls machines, replacing parts as necessary to insure new machine condition. May use electrical testing instruments and other equipment in diagnosing problems. May fabricate parts when not in stock, operating engine lathe, drill press, and grinding and buffing equipment, and using micrometers and other precision measuring to insure parts are of correct dimensions. May perform repairs on site as well as in the shop. Periodically inspects, cleans, oils, and adjusts all machines for which responsible.

#### **DESIRED QUALIFICATION:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training of apprenticeship recognized as producing journeyman mechanic skills, or equivalent experience, is required.

**EXPERIENCE:** One year of journeyman mechanic experience is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established practices and procedures of the specific trade involved.

**ABILITY:** Must be able to use all tools of the trade; may be required to have a local driver's license.

Office Machine Repairer is the highest non-supervisory level of Office Machine Repairer recognized in the Trades and Craft series. It is distinguished from other levels by the performance of full journeyman level office machine repairer work, including highly skilled diagnostic testing, and operation of machines tools to make replacement parts. Supervision is general and instructions are in terms of results expected. Guidelines are provided by established trade practices and procedures. Exercises judgment in determining when to replace parts. Work requires ability to deal with office as well as shop personnel.

#### SUPPLEMENTARY NOTES:

When Office Machine Repairer functions are combined with those of another trade, the position should be classified in accordance with the Mixed Position Rule.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft LEVEL: FSN-1210-4

#### **BASIC FUNCTION:**

Sets up and operates precision metal working machines to fabricate, modify, and repair parts for equipment and machinery.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Sets up and operates engine lathes, drill presses, milling machines, power hack saws and other metal working tools to fabricate, modify, and repair parts for post equipment and machinery. Reviews shop order, specification, or blueprint, or measures part to be replaced with micrometer and other precision measuring instruments. Sets up metal working machines to fabricate, modify, or repair part. Works to precision tolerances (as close a .0001 or .01 mm), checking parts with micrometers, thread and surface gager, and other precision instruments. May disassemble, repair, and re-assemble power and heating plant, water pumping and sewage disposal equipment and similar machinery. May make keys and repair locks. May make railings, gratings and other structural iron/steel items, using forging, welding, and machine tool equipment.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training of apprenticeship recognized as producing journeyman mechanic skills, or equivalent experience, is required.

**EXPERIENCE:** One year of journeyman mechanic experience is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established practices and procedures of the specific trade involved.

**ABILITY:** Must be able to use all tools of the trade; may be required to have a local driver's license.

This is the highest non-supervisory level of machinist recognized in the Trades and Craft Series. It is distinguished from all other levels by the performance of highly skilled journeyman machinist work, requiring the ability to work to precision tolerances in setting up metal working machines to fabricate parts and the ability to repair machinery which must be assembled to precision tolerances. Supervisory instructions are in terms of results desired. Guidelines are provided by established trade practices and procedures. Considerable judgment is exercised in setting up machine tools to product precision work.

#### **SUPPLEMENTARY NOTES:**

Typically, only the largest posts will employ a machinist. More commonly, machinist duties will be combined with those of other trades in the metal working area; such positions should be classified in accordance with the Mixed Position Rule.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft LEVEL: FSN-1210-4

#### **BASIC FUNCTION:**

Installs and repairs all types of locks used in buildings, safes, vehicles, and padlocks.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Disassembles locks and repairs or replaces worn or damaged parts. Fabricates new parts when stock replacements are not available, using lathe, other metal working power equipment, and hand tools to machine or cut tumblers to precision specifications. Makes keys, using key-cutting machine. Changes combinations of safes and other locked cabinets. Opens locks when key or combination is not available. Maintains key control files and extra keys. Keeps records of location and possession of keys.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training of apprenticeship recognized as producing journeyman mechanic skills, or equivalent experience, is required.

**EXPERIENCE:** One year of journeyman mechanic experience is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established practices and procedures of the specific trade involved.

**ABILITY:** Must be able to use all tools of the trade; may be required to have a local driver's license.

This is the highest level of Locksmith work recognized in the Trades and Craft series. It is distinguished from all other levels of performance of skilled work representing the highest level of journeyman mechanic abilities in the Locksmith trade. The Locksmith receives only general supervision in the form of instructions as to results desired. Guidelines consist of established trade practices and procedures. The work requires detailed knowledge of intricate and complex lock mechanisms and high degree of dexterity and manipulative ability, particularly in working on combination locks. Must also have a high degree of skill in machine, metal lock parts, and precision specifications.

#### **SUPPLEMENTARY NOTES:**

Typically, only the largest posts will employ a Locksmith. Frequently locksmith duties will be combined with duties of another trade, usually one in the metal working area; such positions should be classified in accordance with the Mixed Position Rule.

**GROUP:** Plant Operations & Maintenance **SERIES:** Trades and Craft **TITLE:** Furniture Repairer **LEVEL:** FSN-1210-4

#### **BASIC FUNCTION:**

Repairs, rebuilds, and refinishes wooden office and household furniture.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Determines nature and extent of work to be done from supervisory instructions, work order, or from examination of the damaged furniture. Repairs square, mitre, and other joints by disassembling, cleaning, regluing, and fastening, using clamps and improvised jigs and holding devices. Where a replacement part must be fabricated, selects wooden stock and measures, marks, cuts, and finishes part, using hand and power tools such as ban and circular saws, shapers, drills, lathes, and sanders. Installs replacement part, using dowels and glue or other fasteners. May build shelves, cabinets, tables, and other straight-line type furniture by sanding, filling, treating with preservatives, and finishing with varnish, lacquer, oil, French polish, etc. May replace sections of damaged veneers. May refinish and varnish stairways, banisters, etc.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training of apprenticeship recognized as producing journeyman mechanic skills, or equivalent experience, is required.

**EXPERIENCE:** One year of journeyman mechanic experience is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established practices and procedures of the specific trade involved.

**ABILITY:** Must be able to use all tools of the trade; may be required to have a local driver's license.

This is the highest non-supervisory level of Furniture Repairer recognized in the Trades and Craft series. It is distinguished from other levels by the performance of highly skilled journeyman furniture repair work involving ability to do precision work on wood lathes, shapes, power saws, and drills, to use hand tools skillfully, and to refurnish sections of furniture so as to match overall color and surface. Supervision is general and in terms of results expected. Guidelines are provided by established trade practices and procedures. Considerable judgment is involved in matching color and surface when re-furnishing furniture. A high degree of manipulative skill is required.

#### **SUPPLEMENTARY NOTES:**

Few posts will employ a Furniture Repairer. More commonly, Furniture Repairer duties will be combined with those of other trades, frequently with Carpenter FSN-4; such positions should be classified in accordance with the Mixed Position Rule.

**GROUP:** Plant Operations & Maintenance **SERIES:** Trades and Craft **TITLE:** Mechanic (Building Trades) **LEVEL:** FSN-1210-4

#### **BASIC FUNCTION:**

Perform full journeyman mechanic level and repair work in one of the "building trades."

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Performs full journeyman mechanic level work in one of the recognized "building trades" occupations, including but not limited to carpenter, electrician, mason, painter, pipe-fitter, plumber, and welder. Receives oral instructions or work order concerning work to be done, and proceeds to accomplish the necessary maintenance, repair, or installation of equipment, wiring, piping, structures and equipment in accordance with established trade practices and methods, and working from blueprints or schematic drawings as necessary. May direct the work of a Trades Helper. May drive a light truck to transport tools, equipment, and materials to the work site.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training or apprenticeship recognized as producing journeyman mechanic skills, or equivalent experience, is required.

**EXPERIENCE:** One year of journeyman mechanic experience is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established practices and procedures in the specific trade involved.

**ABILITY:** Must be able to use all tools of the trade; must have local driver's license.

This is the highest non-supervisory level in a "building trade" recognized by the Trades and Craft Series. It is distinguished from all other levels by performance of highly skilled work requiring full journeyman mechanic abilities and knowledge in the specific trade. Receives general supervision in the form of instructions as to the work to be done and completed work may be inspected. Other guidelines are provided by established trade practices and procedures. Exercises judgment as to extent and nature of repairs needed, need for replacement of equipment, etc. May have responsibility for providing on-the-job instruction in the trade to a helper.

#### **SUPPLEMENTARY NOTES:**

Mechanic FSN-4 positions are titled in accordance with the specific trade involved, e.g., Carpenter, Electrician, Plumber, Painter, etc.

**GROUP:** Plant Operations & Maintenance

TITLE: Maintenance Mechanic

SERIES: Trades and Craft

LEVEL: FSN-1210-4

#### **BASIC FUNCTION:**

Performs a combination of journeyman mechanic level and semi-skilled tasks in the maintenance and repair of buildings and equipment.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Maintains structures and associated equipment of office buildings, residential quarters and other government-owned or leased buildings by performing painting, plumbing, electrical, carpentry, masonry, refrigeration and air conditioning and other preventive maintenance and repair work. Performs full journeyman level, work in one or more additional trade areas. When assigned to a detached building, may perform and direct the work of a trades helper or laborer. May drive a light truck to transport tools, equipment and materials to the job site.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is desirable; completion of vocational school or apprenticeship recognized as producing journeyman skills, or equivalent experience in the trade of primary expertise is required.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**EXPERIENCE:** One year of journeyman mechanic experience in the trade of primary expertise, plus some semi-skilled experience in other trade areas is required.

**KNOWLEDGE:** Must have full journeyman mechanic knowledge of established trade practices and procedures in the trade of primary expertise.

**ABILITY:** Must have local driver's license.

This is the highest non-supervisory level of maintenance work recognized in the Trades and Craft series. It is distinguished from Maintenance Mechanic FSN-3 by the performance of full journeyman mechanic level work in one trade, and from other journeyman mechanic positions by the performance of semi-skilled work in a number of trade areas. Receives general supervision. Guidelines are provided by established trade practices in the primary trade area and by supervisory instructions or advice from journeyman in the other trade areas.

#### SUPPLEMENTARY NOTES:

The FSN level of Maintenance Mechanic FSN-4 is the same as that of a journeyman mechanic in the trade of primary expertise. When a post utilizes more than one Maintenance Mechanic FSN-4, the primary trade skills of the several Maintenance Mechanic FSN-4 will normally compliment each other; i.e., one may have a primary trade skill in electrical work, another in carpentry, and a third in plumbing, etc.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft LEVEL: FSN-1210-3

#### **BASIC FUNCTION:**

Performs intermediate level or semi-skilled maintenance and repair work in a recognized trade or craft.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Performs intermediate level or semi-skilled work in one of the recognized trades or crafts, including but not limited to carpenter, electrician, mason, painter, pipe-fitter, plumber, welder, locksmith, machinist, furniture repairer, upholsterer, office machine repairer, and refrigeration and air-conditioning mechanic. Independently performs routine and uncomplicated maintenance, repair, and installation work after the job layout, work sequence, material requirements have been determined by the supervisor. May work with a journeyman mechanic on a large scale job, performing the simpler operations or assisting with the highly skilled work. The Mechanic FSN-3 may be engaged in a developmental assignment which teaches the journeyman level skills over a period of several years of on-the-job training and work of ever-increasing levels of skill. May drive a light truck to transport tools, equipment, and materials to the job site.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is normally required: some vocational training is desirable.

**EXPERIENCE:** One year of experience as a helper or semi-skilled worker in the specific trade area.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must know how to use the tools of the trade, and have a limited knowledge of established trade practices and procedures.

**ABILITY:** Must have local driver's license.

This is the second of three non-supervisory levels in the Trades and Craft Series. This is an intermediate level between Helper and Mechanic FSN-4. It is distinguished from positions at the Mechanic FSN-4 level by performance of less than full journeyman mechanic level work and by receiving considerable supervisory review and assistance. To a limited extent, guidelines are provided by established trade practices and procedures. Some judgment is exercised in making repairs.

#### **SUPPLEMENTARY NOTES:**

Mechanic FSN-3 positions are titled in accordance with the specific trade involved, e.g., Carpenter, Electrician, Plumber, Painter, etc.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft TITLE: Maintenance Mechanic LEVEL: FSN-1210-3

#### **BASIC FUNCTION:**

Performs semi-skilled buildings and grounds maintenance work in two or more trades areas.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

Performs semi-skilled maintenance work in two or more trades areas on structures and associated equipment of office, buildings, residential quarters, and other buildings. Duties may include, but are not limited to making or repairing wooden boxes, shelves, bulletin boards, railings, fences, etc., replacing light bulbs, electrical fuses, lighting switches, and tubes, and repairing simple electrical wiring; painting walls, furniture, and equipment, using ready mixed paint, clearing plugged drains, replacing faucet washers, adjusting lavatory closures and commode mechanisms, and correcting minor leaks in household piping and equipment such as refrigerators, washing machines, etc. May also make minor repairs to other household equipment such as ranges and clothes dryers. Uses most hand tools and some power tools of the trade areas worked in. May cut grass and perform other gardening tasks and perform janitorial work for a minor part of the time. May drive a motor vehicle to transport tools, equipment, and materials to the job site.

#### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is desirable.

**EXPERIENCE:** One year of experience in building maintenance work which may include a combination of maintenance Mechanic and helper experience.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGES:** Must have a limited knowledge of maintenance practices and procedures and know how to use the hand tools of the trades **engaged in.** 

**ABILITY:** Must have local driver's license.

This is the lower of two levels of Maintenance Mechanic recognized by the Trades and Craft Series. Maintenance Mechanic FSN-3 is distinguished from Maintenance Mechanic FSN-4 by the fact that positions in this level perform only semi-skilled work, whereas the Maintenance Mechanic FSN-4 performs highly skilled, full journeyman level work in one trade area. The Maintenance Mechanic FSN-3 receives supervisory guidance and instruction relative to assignments, but utilized established trade practices to a limited extent, and exercises a limited degree of judgment in deciding when to repair or replace parts.

**GROUP:** Plant Operations & Maintenance SERIES: Trades and Craft **TITLE:** Trades Helper LEVEL: FSN-1210-2

### **BASIC FUNCTION:**

Assists journeyman mechanics.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Assists journeyman mechanics engaged in the performance of skilled trades and crafts work. Uses hand and powered tools to perform the lower skilled tasks of the trade assisted. Brings tools, supplies, and materials to the job site, and lifts, holds, and prepositions these and other items for the journeyman mechanic. Cleans tools, equipment, and work areas. May receive on-the-job instruction in a trade in connection with assisting journeyman mechanic. May drive a light truck to transport tools and materials to the job site.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is desirable.

**EXPERIENCE:** Some shop experience or vocational training is desirable.

**LANGUAGE:** Level 1 English ability (rudimentary) is all that is required.

KNOWLEDGE: Must have or readily develop a general knowledge of

various tools and their use in repair and maintenance.

**ABILITY:** Must have a driver's license.

### **DISTINGUISHING FEATURES:**

This is the lowest level of work recognized by the Trades and Crafts Series. It is distinguished from other levels in this series by a mixture of labor and semi-skilled tasks in the context of assisting a journeyman mechanic, and by receiving direction and instruction from that journeyman mechanic. The Trades Helper is frequently in an on-the-job training program of a formal or informal nature.

# FSN-1215 UTILITIES EQUIPMENT OPERATION SERIES

This series includes all positions the duties of which are to perform supervisory or non-supervisory work involved in the operation and maintenance of low pressure and high pressure boilers used to heat office buildings and residential quarters, air-conditioning equipment, electric power generation equipment, water plants, and sewage disposal plants. The series includes:

Utilities Foreman	FSN-1215-6
Utilities Foreman	FSN-1215-5
Power Plant Operator	FSN-1215-4
Boiler Operator	FSN-1215-4
Sewage Disposal Plant	
Operator	FSN-1215-3
Water Plant Operator	FSN-1215-3
Power Plant Operator	FSN-1215-3
Boiler Operator	FSN-1215-3
Heating Plant Operator	FSN-1215-2

**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Utilities Foreman LEVEL: FSN-1215-6

#### **BASIC FUNCTION:**

Supervision of the production of two or more distinct types of utilities services.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Supervises eight to fifteen skilled and semi-skilled employees engaged in providing two or more types of utilities services such as electric power, heat, water, and sewage disposal to an embassy/post central complex. Develops or participates in the development of schedules of operation and preventative maintenance. Develops employee work schedules and makes Explains and interprets instruction, standing employee assignments. orders, blueprints, and other guides and directives, and provides on-the-job instruction as necessary. Continually inspects operations, noting the need for repair and maintenance. Reviews fuel and water consumption, steam and water pressure, production and consumption of electricity, and overall efficiency of operations in terms of meeting the utilities needs of the post. Maintains records and prepares reports on various aspects of utilities operations. Is responsible for all typical first level supervisory functions, including efficient use of equipment, material, and manpower, selecting or participating in the selection of employees, evaluation of work approval of leave, and recommendation of employees for promotion and disciplinary action.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is desirable. Must have completed vocational training or apprenticeship or experience recognized as producing highly skilled journeyman level power plant of high-pressure boiler plant operators. The training and experience must have provided substantive ability to perform maintenance and repairs on the equipment in which specialized.

**EXPERIENCE:** Must have two years experience in operating high pressure boilers or electric power plants with shift responsibility, plus two years experience in supervising the operation of utilities equipment.

**LANGUAGE:** Level 3 English ability (good working knowledge) is required.

**KNOWLEDGE:** Must have good working knowledge of utilities equipment operation and of operating practices and procedures.

**ABILITY:** Must have appropriate licenses required by local governmental authority.

### **DISTINGUISHING FEATURES:**

This is the highest of two levels of Utilities Foreman recognized by the Utilities Equipment Operation Series. Utilities Foreman FSN-6 is distinguished from Utilities Foreman FSN-5 by supervision of 8 to 15 skilled and semi-skilled operators of several different types of utilities equipment, and by the fact that the duties are primarily supervisory in character, with continuing responsibility for management of the unit and efficient use of equipment, materials, and manpower. Supervision received is general and instructions are clearly applicable. Considerable judgment is exercised in making efficient use of resources. Duties require ability to supervise effectively.

### SUPPLEMENTARY NOTE:

Supervision of a larger number of employees than indicated above would not normally effect the FSN level of Utilities Foreman FSN-6 position.

**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Utilities Foreman LEVEL: FSN-1215-5

#### **BASIC FUNCTION:**

Working supervision of the production of two or more distinct types of utilities services.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

As a working supervisor, directs the work of 3 to 6 skilled and semi-skilled employees engaged in providing two or more types of utilities services, such as electric power, heat, water, and sewage disposal, and also functions as a skilled equipment operator with shift responsibility in one of the utilities services areas. Receives instructions as to equipment operation preventative maintenance, and employee work schedules, and makes employee assignments. Explains and interprets instructions, standing orders, blueprints, and other guides and directives as necessary. Checks on equipment operation to insure the prescribed level of utilities services is being provided. Maintains records and prepares reports on various aspects of utilities services.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of secondary school is desirable. Completion of vocational training, apprenticeship, or experience recognized as producing highly skilled electric power plant operators or high pressure boiler operators is required. The training and experience should be such as will provide substantive maintenance and repair abilities in the type of equipment (with shift responsibility) electric power plants or high pressure boilers, plus one year of experience in supervising the operation of utilities equipment.

**LANGUAGE:** Level 2 English language ability (limited) is all that is required.

**KNOWLEDGE:** Must have good working knowledge of all utilities equipment and of operating procedures and practices relating to such equipment.

**ABILITY:** Must have appropriate licenses required by local government authority.

This is the lower of two levels of Utilities Foreman recognized by the Utilities Equipment Operation Series. Utilities Foreman FSN-5 is distinguished from Utilities Foreman FSN-6 by the fact that it is primarily a journeyman level utilities equipment operator who also provides working level supervision to 3 to 6 other operators of utilities equipment. The supervision exercised is essentially of a day-to-day nature, and does not involve responsibility for management or personnel functions.

Supervision received is general in nature. Guidelines are primarily established operational and trade practices, and clearly applicable supervisory instructions.

### **SUPPLEMENTARY NOTES:**

Utilities Foreman FSN-5 is not used unless the working supervisor is responsible for two separate types of utilities equipment operations. Utilities Foreman FSN-5 is not used for a position subordinate to Utilities Foreman FSN-6.

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**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Power Plant Operator LEVEL: FSN-1215-4

### **BASIC FUNCTION:**

Operation of electric power generation plant.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Has shift responsibility for the operation of one or more diesel or gasoline powered electric generators and associated equipment in a central power plant, which continuously supplies electric power to a large embassy/post complex. Observes operation of power equipment and generators; reads and interprets instruments and meters; changes, opens, and closes circuits; and adjusts operating controls to achieve maximum efficiency in meeting electric power needs. Starts, switches, and stops power equipment and generators as necessary. Is responsible for placing emergency procedures in effect when electrical storms or other difficulties occur. Oils, lubricates, maintains, and repairs power plant equipment. May operate central air-conditioning equipment. May direct the work of a lower level, semi-skilled power plant operator assigned to the shift.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training, apprenticeship or experience recognized as producing highly skilled power plant operators of journeyman level who are capable of making major repairs on high voltage electrical power plant equipment is required.

**EXPERIENCE:** One year of experience as a power plant operator with shift responsibility is required.

**LANGUAGE:** Level 2 English ability (limited) is all that is required.

**KNOWLEDGE:** Must have full journeyman power plant operator knowledge of operating procedures and practices, and ability to make major repairs.

**ABILITY:** Must have power plant shift operator license if this is a local requirement.

This is the higher of two levels of power plant operators recognized by the Utilities Equipment Operation Series. Power Plant Operator FSN-4 distinguished from Power Plant Operator FSN-3 by the presence of shift responsibility and the responsibility for making major repairs on power plant equipment which involve full journeyman high voltage electrician skills; operational responsibilities also involve full journeyman level skills. General supervision is received from a utilities Foreman, but the Power Plant Operator FSN-4 has full responsibility during the shift, and exercises considerable judgment in operating the power plant safely and with maximum efficiency. Guidelines are provided by established operational and trade practices.

**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Boiler Operator LEVEL: FSN-1215-4

#### **BASIC FUNCTION:**

Operation of high-pressure boilers and related equipment in a large central heating plant.

#### **MAJOR DUTIES AND RESPONSIBILITIES:**

In a large central heating plant, has shift responsibility for the operation of one or more high pressure (over 30 psi hot water or 15 psi steam) boilers and associated equipment which provide heat and hot water to large post buildings. Observes operations, reads temperature, pressure and other gages, and adjusts operating controls to achieve maximum efficiency under existing conditions. Starts, switches, and shuts down boilers, blows down tubes, etc., as necessary. Tests water and takes action to control its alkalization, hardness, etc. Checks hot water and steam lines for defects and requests or makes repairs. Re-pack valves and pumps and makes other repairs of a minor and major nature which can be accomplished while operating the heating plant equipment. Removes scale from boiler tubes and walls. May operate central air-conditioning equipment. May operate auxiliary generator when electric power supply fails. May supervise a lower level, semi-skilled, boiler operator assigned to the shift.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required. Completion of vocational training, apprenticeship, or experience recognized as producing highly skilled, journeyman level, high pressure boiler plant operators capable of making major repairs on boilers and other heating plant equipment involving steam-fitter skills is required.

**EXPERIENCE:** One year of high-pressure boiler operator experience with shift responsibility.

**LANGUAGE:** Level 2 English ability (limited) is all that is required.

**KNOWLEDGE:** Must have good working knowledge of high-pressure boiler operating procedures and practices, and ability to make major repairs.

**ABILITY:** Must have high-pressure boiler operator's license appropriate to shift responsibility if this is a local requirement.

This is the higher of two levels of Boiler Operator recognized by the Utilities Equipment Operation Series. Boiler Operator FSN-4 is distinguished from Boiler Operator FSN-3 by the presence of shift responsibility and the responsibility for making major repairs on boilers and related equipment which involve journeyman level steam-fitter skills; operational responsibilities also involve full journeyman level skills. General supervision is received from a Utilities Foreman, but the Boiler Operator FSN-4 has full responsibility during the shift, and exercises considerable judgment in operating the boilers for which responsible so as to insure safety and maximum efficiency. Guidelines are provided by established operational and trade practices.

### **SUPPLEMENTARY NOTES:**

The number of high-pressure boilers operated within a central heating plant will not normally be a factor in determining the level of a boiler operator position.

**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Sewage Disposal Plant Operator LEVEL: FSN-1215-3

### **BASIC FUNCTION:**

Operation of sewage disposal plant.

### MAJOR DUTIES AND RESPONSIBILITIES:

Operates equipment used for settling, disinfecting, and disposing of sewage. Operates sludge, vacuum, chlorine injection apparatus, sludge beds, and shredders to grind, aerate, and stir sewage, settle out solids, control bacterial action, digest and treat sewage, and dry and remove sludge. Starts and stops equipment, and adjusts equipment controls on the basis of instruments readings and chemical tests to insure efficient operation in conformity with established standards. Clears obstructions and maintains sludge beds in proper operating condition. Lubricate equipment and makes minor repairs, such as re-packing pumps.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required.

**EXPERIENCE:** One year of experience in operation of sewage disposal plant or other utilities equipment or combination of vocational training and experience is required.

**LANGUAGE:** Level 2 English ability (limited) is all that is required.

**KNOWLEDGE:** Must have good working knowledge of sewage disposal plant operating procedures and practices, and ability to perform routine maintenance.

**ABILITY:** Must have sewage disposal plant operator's license if this is a local requirement.

### **DISTINGUISHING FEATURES:**

This is the only level of Sewage Disposal Plant Operator recognized by the Utilities Equipment Operation Series. It is distinguished from other operators of utilities equipment by the nature of the equipment operated. Sewage Disposal Plant Operators receive general supervision, but such supervisory instructions as are issued are clearly applicable. Some judgment is exercised in interpreting chemical test results and in adjusting equipment controls to obtain maximum efficiency. Working conditions are somewhat disagreeable.

GROUP: Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Water Plant Operator LEVEL: FSN-1215-3

### **BASIC FUNCTION:**

Operation of water pumping and treatment equipment.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Operates water pumping and treatment equipment to pump and purify water for drinking and other purposes. May operate swimming pool filtration/pumping equipment. Starts, stops and adjusts equipment as appropriate on the basis of readings obtained from meters, gages and other instruments. Makes tests to determine chlorine content, alkalinity, hardness and other characteristics of the water, and adds chemicals to achieve established water standards. Replace containers of chemicals as necessary. Lubricates equipment and makes minor repairs such as repacking valves. Maintains tanks, equipment and surrounding area in a clean and orderly condition.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required.

**EXPERIENCE:** One year of experience in operation of water plant or other utilities equipment, or a combination of vocational training and experience is required.

**LANGUAGE:** Level 2 English ability (limited) is all that is required.

**KNOWLEDGE:** Must have a good working knowledge of water plant operating practices and procedures and ability to perform routine maintenance operations.

**ABILITY:** Must have water plant operator's license if this is a local requirement.

### **DISTINGUISHING FEATURES:**

This is the only level of Water Plant Operator recognized in the Utilities Equipment Operation Series. It is distinguished from other operators of utilities equipment by the nature of the equipment operated. Water Plant Operators receive general supervision, but such supervisory instructions as are issued are clearly applicable. Some judgment is exercised in interpreting chemical test results and in adjusting equipment controls to insure maximum efficiency.

**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Power Plant Operator LEVEL: FSN-1215-3

#### **BASIC FUNCTION:**

Operation of electric power generation plant.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Working under the direction of a Power Plant Operator FSN-4, operates one or more diesel or gasoline powered electric generators and associated equipment in a central power plant which continuously supplies electric power to a large embassy/post. Observes operation of power equipment and generators, reads and interprets instruments and meters, opens and closes circuits, and adjusts operating controls to achieve maximum efficiency in meeting electric power needs. Starts switches, and stops power equipment and generators as necessary. As directed, places emergency procedures in effect when electrical storms or other difficulties occur. Oils, lubricates, and performs routine maintenance on power plant equipment. Assist Power Plant Operator in repairing equipment. May operate central air conditioning equipment.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required.

**EXPERIENCE:** One year of electric power plant experience, or combination of vocational training and power plant experience.

**LANGUAGE:** Level 2 English ability (limited) is all that is required.

**KNOWLEDGE:** Must have good working knowledge of electric power plant operating practices and procedures.

**ABILITY:** Must have electric power plant operator license if this is a local requirement.

This is the lower of two levels of Power Plant Operator recognized by the Utilities Equipment Operation Series. Power Plant Operator FSN-3 is distinguished from Power Plant Operator FSN-4 by the absence of shift responsibility, the immediate availability of supervisory guidance, and the fact that major repairs are not made. It is distinguished from Boiler Operator FSN-3 by the operation of electric power generation equipment, as opposed to heating equipment.

**GROUP:** Plant Operations & Maintenance SERIES: Utilities Equipment Operation

TITLE: Boiler Operator LEVEL: FSN-1215-3

#### **BASIC FUNCTION:**

Operation of high-pressure boilers and related equipment in a large central heating plant.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Working under the supervision of a Boiler Operator FSN-4, operates one or more high pressure (over 30 psi hot water or 15 psi steam) boilers and associated equipment which provide heat and hot water to a large embassy/post complex. Observes operations, reads temperature, pressure, and other gages, and adjusts operating controls to achieve maximum efficiency under existing conditions. Under direction, starts, switches, and shuts down boilers, blows down tubes, etc. Tests water and takes action to control alkalinity, hardness, etc. Checks hot water and steam lines and reports defects. Oils and lubricates boiler mechanisms. Re-pack valves and makes other minor repairs. Removes scale from boiler tubes and walls. May operate central air-conditioning equipment. May assist Boiler Operator FSN-4 in making major repairs.

### **DESIRED QUALIFICATIONS:**

**EDUCATION:** Completion of elementary school is required.

**EXPERIENCE:** One year of experience in the operation of high pressure boilers is required.

**LANGUAGE:** Level 2 English ability (limited) is all that is required.

**KNOWLEDGE:** Must have good knowledge of high pressure boiler operation, and the ability to assist in maintenance and repairs.

**ABILITY:** Must have boiler operator's license if this is a local requirement.

### **DISTINGUISHING FEATURES:**

This is the lower of two levels of Boiler Operators recognized in the Utilities Equipment Operation Series. Boiler Operator FSN-3 is distinguished from Boiler Operator FSN-4 by the absence of shift responsibility, the immediate availability of supervisory guidance, and the fact that major repairs are not made.

GROUP: Plant Operations & Maintenance **SERIES:** Utilities Equipment Operation

Heating Plant Operator **LEVEL:** FSN-1215-2 TITLE:

### **BASIC FUNCTION:**

Operation of low-pressure boiler heating plants.

### **MAJOR DUTIES AND RESPONSIBILITIES:**

Operates one or more low pressure (not exceeding 30 psi hot water or 15 psi steam) boiler type heating plants used to provide heat for residential quarters or other buildings. Checks condition of boiler, water supply, and setting of valves, and reads water, temperature, and pressure gages. Regulates fire by adjusting drafts or fuel feed rate; on solid fuel plants, replenishes solid fuel and removes clinkers and ashes. Inspects hot water and steam distribution lines for leaks and requests repairs as appropriate. Lubricates and oils boiler equipment as necessary.

### **DESIRED QUALIFICATIONS:**

EDUCATION: Completion of elementary school is desirable.

**EXPERIENCE:** Six months experience in operating low-pressure boiler heating plant or other utilities equipment is required.

LANGUAGE: Level 1 English ability (rudimentary) is all that is required.

**KNOWLEDGE:** Must have or be able to acquire a good working knowledge of low-pressure boiler type heating equipment.

Must have appropriate heating plant license if this is local ABILITY: requirement.

### **DISTINGUISHING FEATURES:**

This is the only level of Heating Plant Operator recognized in the Utilities Equipment Operation Series. It is distinguished from operators of other types of heating equipment by the operation of low pressure boiler type heating plants located in separate buildings (by contract, Boiler Operators operating high pressure boilers located in large central heating plants). Heating Plant Operator receives general supervision, but supervisory instructions are typically very specific, leaving little opportunity for the exercise of judgment.

### SUPPLEMENTARY NOTE:

The number of heating plants operated by the Heating Plant Operator will not normally affect the FSN level of the position.